

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 7. (canceled)

8. (new) A method for monitoring a rotation rate sensor with a vibrational gyroscope, wherein said vibration gyroscope includes a first input and a first output connected to a primary control loop and a second input and second output connected to a secondary control loop, said method comprising the steps of:

supplying, from the primary control loop, an excitation signal to the first input at a natural frequency of the vibrational gyroscope;

amplifying an output signal at the second output, subjecting the output signal to analog/digital conversion, and demodulating the converted output signal into an inphase component and a quadrature component;

filtering the inphase and quadrature components, adding a test signal to each of the inphase and quadrature components, modulating the inphase and quadrature components including the test signal after the inphase and quadrature components including the test signal have passed through the secondary control loop, and compiling the filtered and modulated components to form a driver signal that is coupled to the second input, the test signals comprise a frequency causing side bands to be included in the driver signal, the side bands being outside of a passband of the second control loop;

deriving a rotation rate signal from the inphase component;

monitoring the test signals in the inphase component and the quadrature component that are passed through the secondary control loop; and generating an error message of the amplitude of the monitored test signal is below a predetermined value.

9. (new) The method of claim 8, wherein said step of monitoring the test signals comprises taking measurement signals from the inphase and quadrature components prior to adding test signals and synchronously demodulating the measurement signals.

10. (new) The method of claim 9, wherein said step of monitoring the test signals comprises monitoring the measurement signals from the inphase and quadrature components for at least one of amplitude, ratio of amplitudes, and phase.

11. (new) The method of claim 9, wherein said step of taking measurement signals comprises taking measurement signals of the inphase and quadrature components both before and after the step of filtering;

12. (new) The method of claim 9, further comprising integrating the synchronously demodulated measurement signals over a time period and comparing value of the integration with a threshold value.

13. (new) The method of claim 9, further comprising integrating the synchronously demodulated measurement signals, and measuring the elapsed time for the integrated value to reach a threshold value.

14. (new) The method of claim 8, wherein said step of modulating comprises using a modulation signal with a frequency of approximately 200 Hz.